

WHAT IS CLAIMED IS:

1. An apparatus for performing searches of a known code sequence space in a spread spectrum system, comprising:
- 5 a multi-dwell table for storing energy estimates;
a finger control table;
a next dwell table; and
a comparator;
wherein said finger control table selects an energy estimate output from said
- 10 multi-dwell table;
wherein said comparator compares said energy estimate output from said multi-dwell table to a magnitude of finger value to generate a threshold comparison result; and
wherein said threshold comparison result is used to select a next state output
- 15 from said next dwell table for input to said finger control table.
2. The apparatus of claim 1, wherein said multi-dwell table is a look-up table including programmable integration length and threshold information for a programmable set of states.
- 20 3. The apparatus of claim 1, wherein said finger control table is a look-up table including context information and dwell select information for a set of virtual fingers in said spread spectrum system.
- 25 4. The apparatus of claim 1, wherein said next dwell look up table includes next dwell information for a set of virtual fingers in said spread spectrum system.
5. The apparatus of claim 1, wherein said second of said plurality of multiplexers includes select nodes and input nodes.
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6. The apparatus of claim 5, wherein said select nodes receive a current state input from said finger control table and said threshold comparison result from said comparator.
- 5 7. The apparatus of claim 5, wherein said input nodes receive next dwell information from said next dwell look up table.
8. The apparatus of claim 1, wherein said plurality of output control signals include a hard hit signal and an offset control signal.
- 10 9. A method for performing searches of a known code sequence space in a spread spectrum system, comprising the steps of:
- selecting an energy estimate from a multi-dwell table using current dwell state information in a finger control table;
- 15 style="padding-left: 40px;">generating a threshold comparison signal;
- coupling said threshold comparison signal and a current dwell state signal to obtain a coupled signal;
- using said coupled signal to select an output from a next dwell table; and
- applying the output from the next dwell table to the finger control table to
- 20 update current dwell state information.
10. The method of claim 9, further comprising the step of:
- outputting a hard hit signal from the next dwell table to an external controller for controlling finger allocation.
- 25 11. The method of claim 9, further comprising the step of:
- outputting an offset control signal from the next dwell table to a searcher control for initiating a next search offset.